DATASHEET - PKZM0-1-PI

Motor-protective circuit-breaker, 0.25 kW, 0.63 - 1 A, Push in terminals, For use with motor starter combinations type MSC...

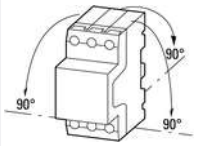
Part no.	**PKZM0-1-PI**
Catalog No.	**199152**
Alternate Catalog No.	**XTPRPI1P0BC1NL**

Delivery program

Product range			PKZM0 motor protective circuit-breakers up to 32 A
Basic function			Motor protection
For use with			motor starter combinations type MSC...
			IE3
Notes			Also suitable for motors with efficiency class IE3.
Connection technique			Push in terminals
Max. motor rating			
AC-3			
220 V 230 V 240 V	P	kW	0.12
380 V 400 V 415 V	P	kW	0.25
440 V	P	kW	0.25
500 V	P	kW	0.37
660 V 690 V	P	kW	0.55
Rated uninterrupted current	I_u	A	1
Setting range			
Overload releases 	I_r	A	0.63 - 1
short-circuit release 			
max.	I_{rm}	A	15.5
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

Technical data

General

Standards			IEC/EN 60947, VDE 0660,UL, CSA
Climatic proofing			Damp heat, constant, to IEC 60068-2-78 Damp heat, cyclic, to IEC 60068-2-30
Ambient temperature			
Storage		°C	- 40 - 80
Open		°C	-25 - +55
Enclosed		°C	- 25 - 40
Mounting position			
Direction of incoming supply			as required
Degree of protection			
Device			IP20
Terminations			IP20
Protection against direct contact when actuated from front (EN 50274)			Finger and back-of-hand proof
Mechanical shock resistance half-sinusoidal shock 10 ms to IEC 60068-2-27		g	25

Altitude		m	Max. 2000
Terminal capacity main cable			
Push-in terminals			
Solid		mm^2	1 x (1 - 6) 2 x (1 - 6)
flexible with ferrules		mm^2	1 x (1 - 6) 2 x (1 - 4)
flexible with ultrasonic welded busbar end		mm^2	1 x (1 - 10) 2 x (1 - 6)
flexible with uninsulated wire end ferrule		mm^2	1 x (1 - 10) 2 x (1 - 6)
Solid or stranded		AWG	18 - 8
Stripping length		mm	12
Standard screwdriver			3.0 x 0.5

Main conducting paths

Rated impulse withstand voltage	U_{imp}	V AC	6000
Overvoltage category/pollution degree			III/3
Rated operational voltage	U_e	V AC	690
Rated uninterrupted current = rated operational current	$I_u = I_e$	A	1
Rated frequency	f	Hz	40 - 60
Current heat loss (3 pole at operating temperature)		W	5.33
Impedance per pole		mΩ	1700
Lifespan, mechanical	Operations	$x\ 10^6$	0.1
Lifespan, electrical (AC-3 at 400 V)			
Lifespan, electrical	Operations	$x\ 10^6$	0.1
Max. operating frequency		Ops/h	40
Motor switching capacity			
AC-3 (up to 690V)		A	1

Trip blocks

Temperature compensation			
to IEC/EN 60947, VDE 0660		°C	- 5 … 40
Operating range		°C	- 25 … 55
Temperature compensation residual error for T > 40 °C			≦ 0.25 %/K
Setting range of overload releases		$x\ I_u$	0.6 - 1
short-circuit release			Basic device, fixed: 15.5 x I_u
Short-circuit release tolerance			± 20%
Phase-failure sensitivity			IEC/EN 60947-4-1, VDE 0660 Part 102

Rating data for approved types

Switching capacity			
Maximum motor rating			
Three-phase			
200 V 208 V		HP	Hinweis: Motorleistung in diesem Bereich nach Bemessungsstrom berechnen. Angegebene Werte nach NEC Table 430-150
230 V 240 V		HP	Hinweis: Motorleistung in diesem Bereich nach Bemessungsstrom berechnen. Angegebene Werte nach NEC Table 430-150
460 V 480 V		HP	Hinweis: Motorleistung in diesem Bereich nach Bemessungsstrom berechnen. Angegebene Werte nach NEC Table 430-150
575 V 600 V		HP	Hinweis: Motorleistung in diesem Bereich nach Bemessungsstrom berechnen. Angegebene Werte nach NEC Table 430-150
Short Circuit Current Rating, type E		SCCR	
240 V		kA	65
480 Y / 277 V		kA	65
600 Y / 347 V		kA	50
Accessories required			LSA-PKZ0-E-PI
Short Circuit Current Rating, group protection		SCCR	
600 V High Fault			
SCCR (fuse)		kA	50
max. Fuse		A	600

SCCR (CB)	kA	50
max. CB	A	600

Design verification as per IEC/EN 61439

Technical data for design verification		
Operating ambient temperature min.	°C	-25
Operating ambient temperature max.	°C	55

Technical data ETIM 7.0

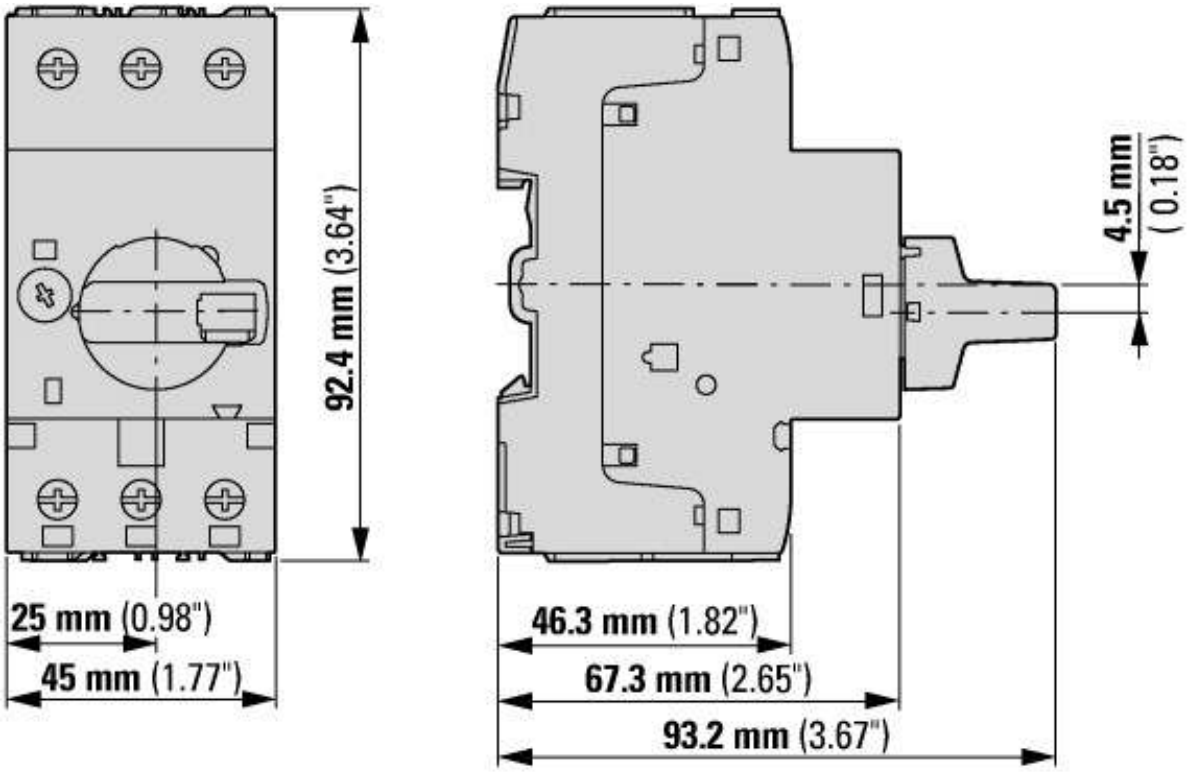
Low-voltage industrial components (EG000017) / Motor protection circuit-breaker (EC000074)		
Electric engineering, automation, process control engineering / Low-voltage switch technology / Circuit breaker (LV < 1 kV) / Motor protection circuit-breaker (ecl@ss10.0.1-27-37-04-01 [AGZ529016])		
Overload release current setting	A	0.63 - 1
Adjustment range undelayed short-circuit release	A	15.5 - 15.5
With thermal protection		Yes
Phase failure sensitive		Yes
Switch off technique		Thermomagnetic
Rated operating voltage	V	690 - 690
Rated permanent current Iu	A	1
Rated operation power at AC-3, 230 V	kW	0.12
Rated operation power at AC-3, 400 V	kW	0.25
Type of electrical connection of main circuit		Spring clamp connection
Type of control element		Turn button
Device construction		Built-in device fixed built-in technique
With integrated auxiliary switch		No
With integrated under voltage release		No
Number of poles		3
Rated short-circuit breaking capacity Icu at 400 V, AC	kA	150
Degree of protection (IP)		IP20
Height	mm	109
Width	mm	45
Depth	mm	75

Approvals

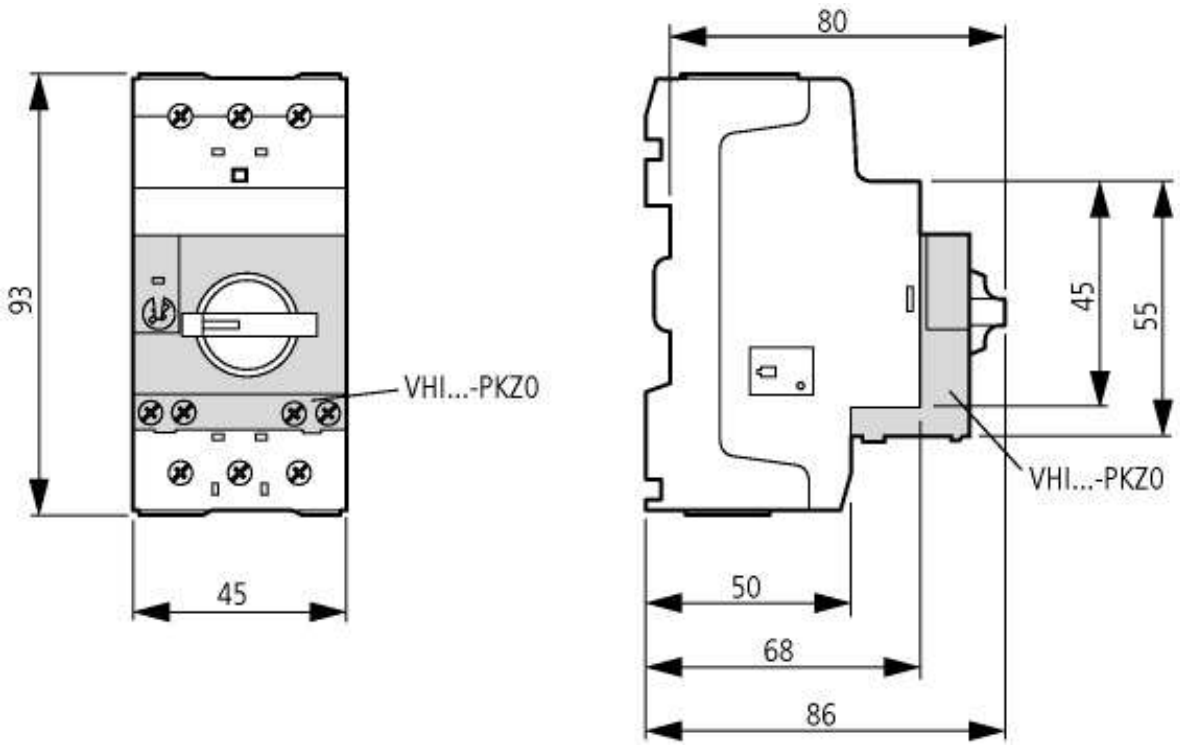
Product Standards		IEC/EN 60947-4-1; UL 60947-4-1; CSA - C22.2 No. 60947-4-1-14; CE marking
UL File No.		E36332
UL Category Control No.		NLRV
CSA File No.		165628
CSA Class No.		3211-05
North America Certification		UL listed, CSA certified
Specially designed for North America		No
Suitable for		Branch circuit: Manual type E if used with Line Side Adapter, or suitable for group installations

Dimensions

Motor-protective circuit-breaker with standard auxiliary contact
PKZM0-…(+NHI-E-…-PKZ0)
PKZM0-…-T(+NHI-E-…-PKZ0)
PKM0-…(+NHI-E-…-PKZ0)



Motor-protective circuit-breakers with lockable rotary handles
PKZM0-…+AK-PKZ0



Motor-protective circuit-breakers with early-make auxiliary contacts
PKZM0-…+VHI-…-PKZ0

Additional product information (links)

Schaltvermögen	https://de.ecat.eaton.com/flip-cat/?edition=MOTCONT1_DE#page_3/44
Motor starters and "Special Purpose Ratings" for the North American market	http://www.eaton.eu/ecm/groups/public/@pub/@europe/@electrical/documents/content/pct_3258146.pdf
Busbar Component Adapters for modern Industrial control panels	http://www.moeller.net/binary/ver_techpapers/ver960en.pdf

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